

VILLAGE OF BARRINGTON HILLS

PERCOLATION TEST PROCEDURES

1. General Requirements

- A. A percolation test witnessed by the Village is required for any new septic system or for any modification or repair to any existing septic system. In addition, a building permit is also required for any new, modified, or repaired system.
- B. The percolation test must be performed by or under the direction of an Illinois licensed Professional Engineer.
- C. First, the Percolation Test Witness Fee of \$100 is paid to the Village Treasurer. Then, the testing engineer calls the Village Engineer with the "Receipt No." and schedules the test (847-478-9700). Tests shall not be conducted in frozen ground or in ground that has been filled in.
- D. The pre-soak period begins at Noon on the first day. The percolation test begins at 10:00 AM on the second day.

2. Preparation for Percolation Test

- A. Test holes shall be placed in an area and pattern that will reflect the proposed septic system location.
- B. Individual lots require a minimum of six (6) holes. Subdivisions require one (1) hole per acre.
- C. Test Hole Standards:
 - (1) Hole diameter to be minimum 4", maximum 6".
 - (2) Hole depth to be minimum 18", maximum 36".
 - (3) Scratch sides and bottom of hole and remove all loose material.
 - (4) Place 2" of course gravel (1/4" to 3/4" size) in bottom of hole.
- D. Current Water Table Determination:
 - (1) Each individual lot and every lot in a subdivision shall contain at least one test hole to determine the existing ground water level.

- (2) One hole, a minimum of six (6) feet deep, shall be excavated prior to the start of the pre-soak period. It shall be placed in the lowest area of the test field.
- (3) Due care shall be taken to prevent this hole from filling with surface water.

3. Pre-Soak Period (Commences at Noon on First Day)

- A. All test holes shall have a pre-soak period of a minimum of 22 hours.
- B. All test holes shall be filled with water during the first 4 hours, from Noon to 4:00 PM on the first day. All test holes shall contain 6" of water from 6:00 AM to 10:00 AM on the second day.
- C. Record the depth of ground water (if any) in 6 foot hole at end of first day.

4. Percolation Test (Commences at 10:00 AM on Second Day)

- A. At the start of test (10:00 AM) all holes shall contain a maximum of 6" of water.
- B. Record the drop in water level for each test hole at the end of the 1st hour, 2nd hour, 3rd hour, 4th hour, 5th hour, 5.5 hour, and 6th hour.
- D. Every test hole shall be refilled with water to the 6" level immediately after taking the water level drop reading.
- E. Record the depth to ground water (if any) in 6 foot hole after completion of percolation test.

5. Village Witness

- A. The pre-soaking period will be inspected sometime during the first 6 hours and the last 4 hours of the 22-hour period. During these inspections, all holes shall contain the correct amount of water for approval of the pre-soak period. If unusual soil conditions are encountered, this requirement may be revised upon timely notification of the Barrington Hills Building Department.
- B. The actual percolation test readings will be witnessed by the Village at the 5th, 5.5 and 6th hour intervals.
- C. The water table reading will be witnessed during the pre-soak period and the percolation test.

6. Percolation Test Record

- A. Record results in accordance with format established by the Village of Barrington Hills Building Department.
- B. Two copies of the percolation test record, signed and sealed by the Professional Engineer, will be part of the required documentation submitted for a building permit.

(underlined for emphasis)